ADDITIONS TO THE LICHEN FLORA OF QUEENSLAND,

By John Shirley, B.Sc.

(Read on the 10th February, 1888.)

During the past year many additions have been made to the list of Queensland Lichens, the determination of species having been performed by that able Lichenologist, Dr. C. Knight, of New Zealand.

Among new species the following are worthy of special remark:—

Calicium hyperellum v. validius C.K.
Platysma eriophyllum ... C.K.
Ricasolia plurimseptata ... C.K.
Pannaria flexuosa ... C.K.
Lecanora Queenslandiæ ... C.K.
Thelotrema expansum ... C.K.
Graphis Parmeliarum ... C.K.

These were, with two exceptions, collected for the first time by myself; for Pannaria flexuosa, C.K., and Lecanora Queenslandie, C.K., we are indebted to Mr. Keys, a fellow-member of this Society. Having received the names only from Dr. Knight, I have made a microscopic examination of each plant, and supply the following descriptions:—

1. Calicium hyperellum v. validius. C.K.—Thallus pale yellowish, obscured by the dark colour of the dead wood below very thinly leprose, spreading thinly round the apothecia, but in distinct between them, showing as a netting with square meshes under the microscope.

Apothecia following the lines of the slightly fissured or decayed wood; shortly stipitate ('2-'4 mm), dark-brown. Stipes cylindrical; apothecia cup-shaped, upper surface costed with a dusty mass of ejected spores.

Spores very small, .0045 mm long by .0025 mm thick, bilocular, contracted at the septum, loculi hemispherical, or nearly so.

Habitat:—On dead wood, Brisbane Racebourse, Cabbage-tree Creek, and Redbank Plains.—J. Shirley.

Platysma eriophyllum, C. K. Thallus simple, with dark-coloured medulla and white woolly surfaces, 1-1½ inch in greatest width; surface wrinkled, margins almost simple, clasping a twig by the posterior and lateral margins, and with the anterior margin free, horizontal, and bearing the apothecia only along its edge. Apothecia from 1.5 to 2 mm. in diameter, disk dull-red to black, flat; margin truly thalline with a beautiful white ray of the woolly filaments. Asci ovate-cylindrical with 2-seriate contents 104 x 1015 mm, or narrow-cylindrical and spores 1-seriate. Spores ovate or globular, simple and colourless, 1007 x 1005 mm. Paraphyses with iodine dull-brown, matted, granular.

Habitat :- Mount Mistake .- J SHIRLEY .

3. Ricasolia plurimiseptata, C. K. Thallus palegrey, with smooth upper surface sparsely dotted over with small black spermagonia; lobes few, rounded, with sinuate margins. Apothecia shortly pedicellate, at first resembling those of *Parmelia mundata*, afterwards with incurvel laterally flattened margins, becoming boat-shaped. The under surface of an apothecium thus exhibited is covered with exceedingly fine closely-set granules. Disk dull dark-red. Asci clavate-cylindrical, '08 x '01 mm. Spores overlapping and massed, acicular, colourless, 12-15 septate '06 x .005 mm Paraphyses clavate, separating, tips very dark-brown (I).

Habitat: Mount Mistake. - J. SHIRLEY.

4. Pannaria flexuosa C.K.—Hypothallus black, to which the brownish-grey or grey-drab thalline lobes are closely appressed; thallus linear-lobate with forked terminations, linear lobate masses seldom more than 2-3 mm. in length.

Apothecia ·6-1 mm broad, with vermilion coloured disks, and pale yellow grey borders. Thecæ cylindrical, deep blue with iodine. Paraphyses golden yellow with iodine, matted, tips agglutinated. Spores globular, oval or oblong, sometimes curved, simple, pellucid, with a thick spore coat, ·0036-·005 x ·003-·0035 mm.

Habitat: Mount Perry, on rocks .- J. KEYS.

5. Lecanora Queenslandiæ, C.K.—Thallus a dirty white or faded yellow, granular, in small round granules somewhat resembling the verrucæ of Pertusaria, the granules separated by a fine fissure-netting; surface of thallus irregular, following the roughened bark.

Apothecia raised above the surface, very numerous in the central portion of the thallus, '7-'9 mm in diameter; disk waxy in appearance and pale red, margin beautifully crenulate from the earliest stages, solid, thalline, rosary-like. Spores simple, pellucid, oval, thickly coated, contents somewhat granular, '005-'008 mm x '002-'0035 mm.

Habitat: Mount Perry, on bark.

This closely resembles, if it is not actually the same lichen as that determined by the Rev. W. A. Leighton as L. pinguis Tuck.

—J. Keys.

6. Thelotrema expansum, C. K. Thallus palebrown, smooth, evenly spread, generally well defined by a narrow, almost black, hypothalline border. Apothecia showing as punctures through the thallus, with thalline and true excipula, latter rupture and curl and become irregular; disk dark-brown in the centre and darker at margins, 1.5 mm. in diameter. Thece clavate-cylindrical. Spores oblong or narrowly oval, occasionally ovate-fusiform, somewhat pointed at each end, brown, 5-7 septate; loculi narrow-oval or oblong, .018-.025 × .0036-.005 mm. Paraphyses capillary, discrete, cloudy yellow-brown with io line. Hymenial gelatine with iodine remaining brown.

Habitat :- On bark, Hill End, South Brisbane. - J. SHIRLEY.

7. Graphis Parmeliarum, C. K. Parasitic on Parmelia tinctorum as rounded brownish spots scattered over the upper surface of the thallus, generally separate, but at times marginal and confluent, slightly raised above the surface of its host, 2-3 mm. in diameter. The lirellæ can be observed on these spots as radiating dark-brown lines, not extending quite to the centre of the parasitic thallus, or reaching its circumference, 1 mm. in length, with slightly raised thalline excipula, and very fine thalamial line. The surrounding thallus paler near the lirellæ than elsewhere. Spores non-det.

Habitat: On Parmelia, Rosewood Scrub.—J. Shirley.

USES OF SOME QUEENSLAND PLANTS

By C. Hedley, Esq.,

(Read on the 12th June, 1888.)

Whilst resident at Boyne Island, in the Port Curtis district, certain qualities inherent in many of our native plants, and especially such as were availed of by the blacks, were brought under my notice. The few facts in this connection now recorded, constitute a portion of the information thus gleaned, and they may be of service to those who have occasion to deal with the indigenous vegetation of the colony in its economic bearings. For a knowledge of several of the facts related I am beholden to Mr. Wyndham, of Boyne Island, whose long sojourn in districts peopled by our aborigines, and keen habits of observation, especially qualify him for speaking on the subject under consideration.

Rhizophora mucronata, Lam., the red mangrove. — The honey which the native bees collect from the blossoms of this tree is reputed to be of a poisonous nature, and that it probably is endowed with some active deleterious principle, seems probable in view of the following occurrence. A man and his